REMARKS

Claims 1-30 were pending in the present application. Claims 1-6 have been cancelled. Claims 7, 15-20, 22, and 30 have been amended. Accordingly, claims 7-30 are now pending in the application.

Claims 5-8, 18, 22, and 30 were objected to for informalities. Applicant has amended the claims to correct the informalities.

Claims 1-30 stand rejected under 35 U.S.C §112, 2nd paragraph, as being indefinite. The Examiner asserts that the claim limitation is not clear based upon description in the specification at paragraph [0090]. This is not inconsistent with the coherency protocol described in, for example, paragraph [0091] and in other parts of the specification and claimed in claim 1. Applicant respectfully submits the specification describes multiple embodiments. Applicant directs the Examiner's attention to the disclosure beginning at paragraph [0172], which describes multi-node embodiments. More particularly, Applicant directs the Examiner to the latter portion of paragraph [0200], which describes an embodiment having language that supports the recited limitation.

Accordingly, Applicant submits claim 16 is clear and definite.

In addition, Applicant respectfully disagrees with the Examiner's characterization of claim 30. Specifically, the means is not limited to a memory, and further in Applicant's system a memory "subsystem" may, in fact, send and receive packets.

Applicant has amended many of the claims to correct various antecedent and other informalities issues.

Claims 1-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gharachorloo et al. (U.S. Patent Publication No. 2002/0124144) (hereinafter

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"Gharachorloo") in view of Ignatowski et al. (U.S. Patent No. 6,457,100) (hereinafter "Ignatowski"). Although Applicant traverses at least portions of the rejection, Applicant has cancelled claims 1-6 and thus believes the rejection to now be moot.

Claims 1-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hagersten et al. (U.S. Patent No. 5,940,860) (hereinafter "Hagersten") in view of Ignatowski. Although Applicant traverses at least portions of the rejection, Applicant has cancelled claims 1-6 and thus believes the rejection to now be moot.

Claims 7-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gharachorloo in view of Ignatowski, in view of Hagersten et al. (U.S. Patent No. 5,887,138) (hereinafter " Hagersten2"), and in further view of Hagersten. Applicant respectfully traverses this rejection.

Applicant's claim 7 recites a system comprising in pertinent part

"an inter-node network configured to convey coherency messages between the interface in the node and an additional interface in an additional node, wherein the additional interface is configured to send a coherency message requesting a read access right to a coherency unit on the inter-node network, wherein a given active device of the plurality of active devices has an ownership responsibility for the coherency unit;

wherein the interface is configured to respond to the coherency message by sending a proxy address packet on the address network;

wherein a different active device of the plurality of active devices is configured to request a read access right to another coherency unit by sending an address packet on the address network;

wherein the given active device of the plurality of active devices has an ownership responsibility for the another coherency unit, wherein the given active device is configured to not transition the ownership responsibility for the another coherency unit in response to the address packet and to transition the ownership responsibility for the coherency unit in response to the proxy address packet."

(Emphasis added)

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The Examiner asserts these features are taught by the combination of cited references. More particularly, the examiner assert Hagersten teaches the last limitation. Applicant respectfully disagrees.

Hagersten discloses at col.10 line 45 - col. 11, line 27

"A bus entity, e.g., processing node 102, may issue a memory access request for a shared, read-only copy of memory block 112(a) by issuing a RTS request. If no other internal bus entities intervenes, memory module 110 may respond to the outstanding RTS request with a RTS.sub.-- data to furnish the RTS progenitor with a copy of the requested memory block from memory module 110, along with the state of that memory block (i.e., the content of the associated Mtag). Alternatively, if the RTS request is erroneous, e.g., requesting a non-existent memory block, memory module 110 may reply with a RTS-nack response, signifying that the RTS request is not acknowledged and needs to be retried by the RTS progenitor.

Once the RTS.sub.-- data response is received by the RTS progenitor from memory block 110, i.e., processing unit 102 in this example, the RTS progenitor then examines the state of the enclosed Mtag to determine whether the current copy of the memory block received from memory module 110 can be employed to service the current RTS need. Generally, if the state of the Mtag is gS, at least one internal bus entity currently has a shared, read-only copy and this RTS memory access request can be serviced either by another internal bus entity or by the data received from memory module 110 itself. If the state of the Mtag is gM, at least one internal bus entity currently has an exclusive copy and this RTS memory access request can be serviced either by another internal bus entity or by the data received from memory module 110 itself.

If the state is gI, it is understood that an external device currently has the exclusive copy of the memory block and the RTS progenitor may issue a request to obtain that copy via the remote RTS memory access request (RRTS). <u>If for some reason the RRTS is issued by the RTS progenitor responsive to a gM or gS Mtag, coherence transformer 200 understands this to be an error condition and will request the RTS progenitor to retry to obtain the shared copy from the internal bus entities. If the RRTS is issued by the RTS progenitor responsive to a gI Mtag, coherence transformer 200 may respond to this RRTS command by obtaining the shared copy of the requested memory block from the external device and returning that copy to the RRTS progenitor via the RTSR.sub.-- data response. Further, coherence transformer 200 performs a write back to memory module 110 to change the state of the Mtag corresponding to the requested memory block to gS (via the RTSR response).</u> If the RRTS request is erroneous, e.g., requesting a non-existent memory block, coherence transformer 200 may reply with a RTSR.sub.-- nack response, signifying that the RRTS

request is not acknowledged and needs to be retried by the RRTS progenitor." (Emphasis added)

From the foregoing, it appears Hagersten is teaching in response to a remote RTS request, depending on the gTag state, an outside entity (e.g., coherence transformer) may change the state of the Mtag to shared. This is in contrast to the recited limitation, which recites "wherein the given active device is configured to not transition the ownership responsibility for the another coherency unit in response to the address packet and to transition the ownership responsibility for the coherency unit in response to the proxy address packet." Thus this is in reference to ownership changes and responses depending on whether the request is from a local device (same node) or from another node.

Thus Applicant submits Hagersten **does not teach or suggest** "wherein a given active device of the plurality of active devices has an ownership responsibility for the coherency unit;" and "wherein the given active device of the plurality of active devices has an ownership responsibility for the another coherency unit, wherein the given active device is configured to not transition the ownership responsibility for the another coherency unit in response to the address packet and to transition the ownership responsibility for the coherency unit in response to the proxy address packet," as recited in claim 7.

Applicant cannot find this feature taught in any of the pother cited references. Thus for the reasons given above, Applicant submits claim 7, along with its dependent claims patentably distinguishes over the cited references.
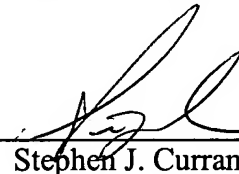
Applicant submits claims 18, 22, and 30 recite features that are similar to features recited in claim 7. Accordingly, Applicant submits claims 18, 22, and 30 along with their respective dependent claims, patentably distinguish over the cited references for at least the reasons given above.

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CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-25901/SJC.

Respectfully submitted,

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